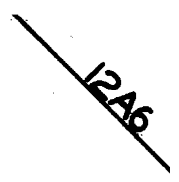




12A6

BEAM POWER AMPLIFIER

Heater#	Coated Unipotential Cathode	
Voltage	12.6	a-c or d-c volts
Current	0.15	amp.
Direct Interelectrode Capacitances (Approx.):°		
Grid to Plate	0.3	μμf
Input	9.0	μμf
Output	9.0	μμf
Maximum Overall Length		3-1/4"
Maximum Seated Height		2-11/16"
Maximum Diameter		1-5/16"
Bulb		Metal Shell, MT-8
Base		Small Wafer Octal 7-Pin

Pin 1 - Shell
Pin 2 - Heater
Pin 3 - Plate
Pin 4 - Screen
Pin 5 - Grid
Pin 7 - Heater
Pin 8 - Cathode

Mounting Position: Any

BOTTOM VIEW (7AC)

Maximum Ratings Are Design-Center Values

AMPLIFIER

Plate Voltage	250 max.	volts
Screen Voltage	250 max.	volts
Plate Dissipation	7.5 max.	watts
Screen Dissipation	1.5 max.	watts

Operating Conditions and Characteristics-Class A_1 Amplifier:

Plate	250	volts
Screen	250	volts
Grid*	-12.5	volts
Peak A-F Grid Voltage	12.5	volts
Zero-Signal Plate Current	30	ma.
Max.-Signal Plate Current	32	ma.
Zero-Signal Screen Current	3.5 approx.	ma.
Max.-Signal Screen Current	5.5 approx.	ma.
Plate Resistance	70000 approx.	ohms
Transconductance	3000	μmhos
Load Resistance	7500	ohms
Total Harmonic Distortion	7	%
Max.-Signal Power Output	3.4	watts

\# In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.

* The d-c resistance in the grid circuit should not exceed 0.1 megohm when fixed bias is used, or 0.5 megohm when cathode bias is used.

° With shell connected to cathode.

SM. WAFER OCTAL — 3¼" MAX. — 2 11/16" MAX. — MT-8 — 1 5/16" MAX.

← Indicates a change.

May 1, 1942 — TENTATIVE DATA

RCA RADIOTRON DIVISION
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12A6



12A6

AVERAGE PLATE CHARACTERISTICS

PENTODE CONNECTION

E_f = 12.6 VOLTS SCREEN VOLTS = 250

CONTROL-GRID (I_{C1}) MILLIAMPERES

12 8 4 0

CONTROL-GRID VOLTS E_{C1} = 0

+10 +5 −5 −10 −12.5 −15 −20 −25

E_{C1} = +5 +10

I_{C2} E_{C1} = −10 −20 −25

PLATE VOLTS

0 100 200 300 400 500

160 120 80 40 0

PLATE (I_b) OR SCREEN (I_{C2}) MILLIAMPERES

OCT. 14, 1941

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92C-6329



12A6

12A6

AVERAGE PLATE CHARACTERISTICS

TRIODE CONNECTION

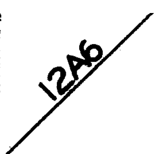
E_f = 12.6 VOLTS

PLATE (I_b) OR GRID (I_C) MILLIAMPERES

OCT. 13, 1941

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92C-6327





12A6

OPERATION CHARACTERISTICS

E_f =12.6 VOLTS PLATE VOLTS=250 SCREEN VOLTS=250
CONTROL-GRID VOLTS=-12.5 SIGNAL VOLTS (RMS)=8.8

JAN.10,1942

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-6354